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Remarks

Claims 1-11 are pending in the application. Claims 1, 2 and 4-10 are presently amended, claim 3 is cancelled without prejudice or disclaimer, and new claims 12 and 13 are added. Applicant submits that the amendments are fully supported by the specification as originally filed. Reconsideration and allowance of the application are respectfully requested in light of the following remarks.

The non-final Office Action dated October 23, 2007 lists the following objections and rejections: the specification is objected to because the abstract is not provided on a separate sheet, and for starting with the phrase "The present invention provides an array;" claim 9 is objected to as being of improper dependent form; claims 1-4 and 7-11 stand rejected under 35 U.S.C. § 102(e) over Tuttle (U.S. Patent No. 6,999,339); and claims 5-6 stand rejected under 35 U.S.C. § 103(a) over Tuttle in view of Nakashio (U.S. Patent No. 6,760,201). Applicant traverses these objections and rejections.

Applicant submits that the objection to the abstract has been rendered moot by the present amendment, in which a new abstract has been submitted on a separate sheet. Withdrawal of the objection is requested.

While Applicant disagrees with the objection to claim 9, and solely for the purposes of expediting prosecution, Applicant submits that the present amendment of claim 9 to exclude reference to claim 1 has rendered the objection moot. Withdrawal of the objection is requested.

Applicant disagrees with the § 102(e) rejection of claims 1-4 and 7-11 over Tuttle because Tuttle does not teach temporarily disabling programming operations in response to measuring an external field above a threshold and storing incoming data in a memory buffer during the time that programming operations have been suspended. Tuttle discloses sensing a level of environmental magnetic field applied to MRAM cells and adjusting the current applied to the MRAM cells in response. In the Office Action it is argued that Tuttle's disclosed modification of operation according to the sensed environmental magnetic field implicitly reads on Applicant's claim recitation of temporarily disabling programming operations. Applicant submits that altering operating conditions but continuing to operate as disclosed by Tuttle cannot be so glibly equated with discontinuing operations as recited in Applicant's claims. For example, because

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Tuttle discloses continuing operations under modified conditions rather than temporarily discontinuing operations, Tuttle includes no teaching or suggestion related to data rescuing processes such as storing incoming data in a memory buffer during discontinued operations for later retrieval when operations have been restored. Moreover, because Tuttle seeks to continue operations in the presence of environmental magnetic fields, Tuttle teaches the desirability of including magnetic shielding to reduce the effects of the environmental magnetic field, thereby lessening the corrections required to maintain operations. *See, e.g.,* Col. 10:20-27. When the response to an above-threshold external magnetic field is temporarily disabling programming operations such as recited in Applicant's claims, shielding can be relaxed or not used at all. *See, e.g.,* Paragraph [0056].

Applicant therefore submits that Tuttle does not teach all the elements recited in Applicant's claims, and requests reconsideration and withdrawal of the § 102(e) rejection of claims 1-4 and 7-11.

Claims 5 and 6 stand rejected under § 103(a) over Tuttle in view of Nakashio. Applicant submits that Nakashio provides no teaching to overcome the deficiencies of the Tuttle reference discussed above. Nakashio discloses that magnetic memory elements and magnetic sensors can be constructed layered magnetic tunnel elements. Applicant finds nothing in Nakashio to teach the suitability of such magnetic sensors for use in detecting external magnetic fields applied to such magnetic memory elements. Thus, the proposed combination still lacks a reason to use the sensors and memory elements in the device of Nakashio.

For at least these reasons, Applicant submits that the § 103(a) of claims 5 and 6 is improper, and requests reconsideration and withdrawal of the rejection.

Applicant further submits that new claims 12 and 13 are allowable over the cited references, which fail to teach or suggest using a rotated one of the magnetoresistive memory elements in an array as a magnetic field sensor unit for the array. As disclosed by Applicant, one or more magnetoresistive memory elements in an array can be formed into a magnetic field sensor for the array by rotating the sensor at an angle with respect to the memory elements. *See, e.g.,* Paragraph [0042].

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In view of the remarks above, Applicant believes that each of the rejections has been overcome and the application is in condition for allowance. Should there be any remaining issues that could be readily addressed over the telephone, the Examiner is asked to contact the agent overseeing the application file, Peter Zawilski, of NXP Corporation at (408) 474-9063 (or the undersigned).

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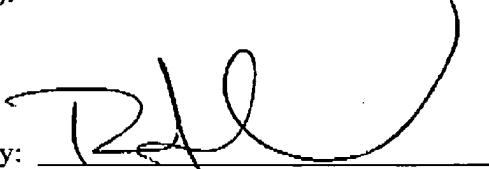
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